

Appl. No.: 09/990,722

Amdt. Dated September 21, 2005

Response to Office Action of April 25, 2005

REMARKS/ARGUMENTS

As a preliminary matter, Applicant hereby confirms the election of Species 1 identified in the office action of April 25, 2005 for examination, and cancels claims 24-27.

Claims 1-23, 28 and 29 are currently pending in the application. Claim 15 has been rejected as allegedly being indefinite under 35 U.S.C. § 112, second paragraph. Claims 1-23, 28 and 29 have been rejected under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 6,408,282 (Buist) in view of U.S. Patent Publ. No. US2001/0054020 (Barth).

Applicants respectfully traverse the rejections set forth above. As to the rejection of claim 15 under 25 U.S.C. § 112, second paragraph, Applicant has amended the claim as set forth above. In addition, Applicant has amended claim 1 to read as follows:

1. A system enabling a web services network, comprising:
 - a parent node operably connected to a computer network,
 - the parent node comprising a first routing table stored in a persistent data store, the first routing table including routing entries allowing for the routing of service action requests across the computer network; and
 - at least one routing node comprising a local routing table including routing entries allowing for the routing of service action requests across the computer network,
 - the routing entries each comprising an action identifier and a corresponding network resource locator;
 - the routing node operably connected to the computer network to route service action requests including action identifiers to service providing endpoints associated with the network resource locators corresponding to the action identifiers,
 - wherein the parent node is operative to add a routing entry to the local routing table of the routing node in response to a routing entity request;
 - wherein the routing node, in response to a service action request requiring a routing entry not contained in the local routing table, transmits a routing entity request to the parent node.

Applicant has amended independent claims 15 and 28 in a similar manner.

Buist, alone or in combination with Barth, neither discloses nor suggests the inventions according to the amended claims. The claimed inventions are directed to a web services network architecture comprising a distributed hierarchy of nodes that intermediate web services network transactions, routing service action requests based on routing entries that map action identifiers to network resource locators. According to the invention, the hierarchy controls the flow of routing

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information that is distributed to the routing nodes from a root table, allowing individual routing nodes to store only the information they need. This permits light-weight routing node implementations, and allows for the actual software implementations to be installed on existing network gear (e.g., routers). This feature allows multiple routing nodes throughout the network reducing the bottleneck associated with convention web services network gateways.

Applicant's routing nodes are directed mainly to intermediating web services transactions between clients and service providing endpoints, where as Buist essentially discloses a load distribution system for a service providing endpoint. Buist discloses a user-to-user securities trading system, including a root server/database and a plurality of replica servers. At initiation (e.g., user login), a load balancer directs the user to a replica server. A user may then post trades on the replica server, which transmits the trade requests to the root server/database. The root server/database logs the requested trade, assigns an ID, and transmits the updated record to the replica server. The replica server, however, does not route service action requests within the meaning of the claim language as it does not appear to access a routing table or otherwise make a determination as to where a transaction request should be routed. In Buist, the replica servers merely contact the root server to accomplish requested transactions. For example, the root server in Buist is required to accomplish a user-to-user securities transaction, while the replica servers are position to interact directly with the user, and involve the root server only when required such as to accomplish a trade, or change user account information. On the other hand, the routing node in the present invention operate as part of a distributed web services network that performs a routing service and includes information allowing it to route service action requests to appropriate endpoints. Furthermore, if the routing node does not contain the requisite information, it transmits a request up the routing node hierarchy to obtain the information.

Barth appears to disclose a system that monitors user actions to determine whether the user is searching for information, processes the user actions to compose a search query, and transmits the search query to at least one information supplier. Barth also discloses a load balancing system that arbitrates among a group of servers to support a large user base. Specifically, a load balancer 704 receives information concerning a user session, and chooses a search server from an array of search servers to find resources that may be relevant to the information relating to the user session.

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Similar to Buist, the search server is another service providing endpoint, while the load balancer arbitrates among these service providing endpoints.

Focusing more directly on the claim language, neither Buist nor Barth disclose a web services network system comprising a parent node and a routing node, where the routing node routes service action requests to service providing endpoints based on routing table information stored in a routing table. The cited references also do not disclose a routing table comprising routing entries, where the routing table entries include an action identifier and a corresponding network resource locator. Furthermore, neither Buist nor Barth disclose a web services network system that includes a routing node that requests routing entry information from the parent node.

In light of the foregoing, Applicant believes that all currently pending claims are presently in condition for allowance. Applicant respectfully requests a timely Notice of Allowance be issued in this case. If the Examiner believes that any further action by Applicant is necessary to place this application in condition for allowance, Applicants request a telephone conference with the undersigned at the telephone number set forth below.

Respectfully Submitted,
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By



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